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| APPLICATION NO.           | FILING DATE                    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|--------------------------------|----------------------|---------------------|------------------|
| 10/550,981                | 02/01/2006                     | Kazue Watanabe       | F-8846              | 8317             |
|                           | 7590 01/25/2007<br>HAMBURG LLP | EXAMINER             |                     |                  |
| 122 EAST 42ND STREET      |                                |                      | REDDY, KARUNA P     |                  |
| SUITE 4000<br>NEW YORK, N | IY 10168                       |                      | ART UNIT            | PAPER NUMBER     |
| ,                         |                                |                      | 1713                |                  |
|                           |                                |                      |                     |                  |
| SHORTENED STATUTORY       | PERIOD OF RESPONSE             | MAIL DATE            | DELIVERY MODE       |                  |
| 3 MONTHS                  |                                | 01/25/2007           | PAPER               |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|   | Application No.   | Applicant(s)    |  |  |  |  |  |
|---|---|-----------------|--|--|--|--|--|
| Office Action Summany   | 10/550,981  | WATANABE, KAZUE |  |  |  |  |  |
| Office Action Summary   | Examiner  | Art Unit        |  |  |  |  |  |
|   | Karuna P. Reddy   | 1713            |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |   |                 |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |                 |  |  |  |  |  |
| Status  |   |                 |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  | <u> </u>  | 1               |  |  |  |  |  |
| , <u> </u>  | s action is non-final.  | ·               |  |  |  |  |  |
| 3) Since this application is in condition for allows  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is |                 |  |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.   |   |                 |  |  |  |  |  |
| Disposition of Claims   |   |                 |  |  |  |  |  |
| 4) Claim(s) <u>1-11</u> is/are pending in the application.  |   |                 |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |   |                 |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |   |                 |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-11</u> is/are rejected.   |   |                 |  |  |  |  |  |
| 7) Claim(s) is/are objected to.   | 7) Claim(s) is/are objected to.   |                 |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.   |   |                 |  |  |  |  |  |
| Application Papers  |   | •               |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |   |                 |  |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.  |   |                 |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |   |                 |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |   |                 |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |   |                 |  |  |  |  |  |
| Priority under 35 U.S.C. § 119  |   |                 |  |  |  |  |  |
| 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☐ All b) ☐ Some * c) ☐ None of:  |   |                 |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.   |   |                 |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No  |   |                 |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage   |   |                 |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).   |   |                 |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.  |   |                 |  |  |  |  |  |
|   |   |                 |  |  |  |  |  |
| Attachment(s)   |   |                 |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)   |   |                 |  |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date  Notice of Informal Patent Application   |   |                 |  |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date 9/26/2005.  5) Notice of Informal Patent Application 6) Other:  |   |                 |  |  |  |  |  |

## **DETAILED ACTION**

### Claim Objections

1. Claim 1 is objected to because of the broad and narrow range/limitation in the same claim: The claim recites the broad recitation of "functional compounds" followed by a narrow limitation "such as dyes...". Please make appropriate correction.

# Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "dyes, pigments ..."; does not reasonably provide enablement for "or the like". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The specification does not provide any guidance on what things are considered to be "or the like", which therefore would result in undue experimentation by the potential infringer as to what is actually embraced by the claimed language.

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### Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 5. Claims 1, 3-7 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Shih et al (US 6,153,288).

Shih et al disclose a coatable ink composition comprising a pigment dispersed in or mixed with a binder, which comprises an ethylene-vinyl acetate (EVA) emulsion polymer and at least one water soluble cationic polymer (column 1, lines 40-44). In example 1, ink-receptive composition containing a single cationic water soluble polymer is prepared by blending components in the order listed: EVA emulsion polymer, a poly(allyldimethylammonium chloride) which reads on water soluble cationic polymer of claim 1 having formula of claim 6, i.e. polymer of a salt of CH<sub>2</sub>=CH-CH<sub>2</sub>-NHR and silicron which reads on the pigment of instant invention (column 8, lines 13-16). The EVA emulsion polymer is stabilized with about 5% by weight of polyvinyl alcohol and comprises from about 15 to 70% by weight of the composition on a dry weight basis i.e. water is not included in the calculations of composition percentages (column 2, lines 48-52) and reads on the aqueous medium of claim 1 in light of the specification of

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instant invention.

Therefore, Shih et al anticipate the instant invention.

### Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  - 1. Determining the scope and contents of the prior art.
  - 2. Ascertaining the differences between the prior art and the claims at issue.
  - 3. Resolving the level of ordinary skill in the pertinent art.
  - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shih et al in view of Su (US 6,124,417).

The discussion with respect to Shih et al in paragraph 5 is incorporated herein by reference.

The prior art reference of Shih et al is silent with respect to the usage of acrylic monomer and vinyl acetate monomer as polymer components of aqueous emulsion type acrylic pressure sensitive adhesive.

However, Su teaches water-receptive, water dispersible acrylic polymers that are non-tacky when dry but become tacky when wet. The composition comprises an acrylic based polymer prepared by emulsion polymerization of a monomer mixture comprising alkyl acrylates, vinyl acetate and (meth)acrylic acid (column 2, lines 5-17). Films cast from these emulsion polymers are useful as ink jet imprintable polymers that provide upto 100% image transfer (column 2, lines 28-32). See table 1 (column 7 and 8) for examples of emulsion polymers made from acrylates, vinyl acetate in an aqueous medium. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to use an emulsion polymer comprising acrylates and vinyl acetate monomer because Su has proven successfully that emulsion polymers consisting

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of acrylic monomers and vinyl acetate which are non-tacky when dry but become tacky when wet show 100% image transfer at room temperature and therefore one of ordinary skill in the art would have expected the composition consisting of acrylic monomers and vinyl acetate to work with the composition of Shih et al, motivated by expectation of success.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

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Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy Examiner Art Unit 1713

DAVID W. WU

SUPERVISORY PATENT EXAMINER
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